Abstract of the Disclosure

A positioning apparatus according to the present invention includes a brushless motor, a positioning mechanism to position a movable member within a predetermined movable range in accordance with rotation of the brushless motor, and a motor control circuit to rotate a rotor of the brushless motor by sequentially supplying a driving pulse to a plurality of fixed coils of the brushless motor. The motor control circuit includes, a driving pulse generator to generate the driving pulse, a present stage number detector to detect a present stage number of the rotor in accordance with an output signal from a magneto-sensitive device of the brushless motor, an initializer to move the movable member to at least a forward traveling limit or a backward traveling limit within the movable range so as to set the rotor present stage number as a forward traveling limit stage number or a backward traveling stage number when the movable member reaches the forward traveling limit or the backward traveling limit, and a speed reducer to reduce a rotating speed of the brushless motor by reducing power of the driving pulse when the rotor present stage number is equal to at least the forward traveling limit stage number or the backward traveling stage number.